

MANUFACTURING EXTENSION PARTNERSHIP

Success Stories from the Field

Kendro Laboratory Products

North Carolina Manufacturing Extension Partnership

Kendro Laboratory Products Reduces Floor Space Requirements By 81 Percent

Client Profile:

Kendro Laboratory Products is an international manufacturer of thermal, clean air, bioprocessing, and other equipment for the life science, material science, drug discovery, and bioprocessing markets. The company, based in Asheville, North Carolina, includes a 284,000 square foot plant and approximately 500 employees.

Situation:

Kendro Laboratory Products is implementing lean manufacturing concepts based on the Toyota Production System with the help of the Industrial Extension Service at North Carolina State University (IES), a NIST MEP network affiliate. Lean manufacturing concepts are helping Kendro reduce waste, decrease cycle times, and improve productivity.

Solution:

In early 2002, selected Kendro employees participated in IES's two-day value stream mapping process. Last spring, the company also conducted two simultaneous lean events, one in the ULT (ultra low temperature) start area and another in the fabrication shop scheduling area.

Kendro employees recently completed another lean project, a five-day lean event designed to integrate a high-demand product, a super-insulated (SI) freezer unit, into the ULT main start area. The objective of this five-day lean event was to move the SI line to the start area of the ULT line, reducing needed floor space, travel requirements, and overtime. Additional objectives included improving productivity and throughput and reducing the SI line backlog, without sacrificing quality or safety.

IES created a four-station, U-shaped layout for the plant, with supplies and tools conveniently placed within reach of each station. The new layout reduced assembler walking distance required to complete one SI unit from almost one mile to only 65 feet. The original 3,586 square foot work space was compressed to 684 square feet, an 81 percent reduction.

Results:

Improved productivity on the SI start line by 50 percent.

Increased SI output from seven units in 10 shift hours, using five crew members, to 10 units in eight shift hours with six crew members.

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Redesigned plant layout to reduce non-value-added motion.
Reduced required floor space by 81 percent.

Testimonial:

“The Industrial Extension Service is an excellent resource for helping us get our arms around the process of implementing lean throughout the entire plant.”

Kimberly Wilkes, Quality Engineer